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HISTORY OF MEDICINE

SYLLABUS

AND

SPECIMEN EXTRACTS

JOHN D. COMRIE, M.A., B.Sc., M.B.

LECTURER

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University of Edinburgh

HISTORY OF MEDICINE

SYLLABUS OF LECTURES

(*Winter Session*)

Lecturer—JOHN D. COMRIE, M.A., B.Sc., M.B.

LECTURE I.—Introductory. Medicine among primitive peoples. Babylonian medicine of 2000 B.C.; letters of Assyrian doctors; statutes regulating practice. Relations to Egypt. Medicine and magic.

LECTURE II.—Egyptian medicine from 1500 B.C. Relations of medicine to the priesthood and to embalming. Modern research upon ancient diseases. Medical papyri. Surgery under the XVIIIth Dynasty.

LECTURE III.—Early Greek medicine from 1000 B.C.; medicine of Homer. Relations to Egyptian medicine; Pythagoras and other early philosophers. Plato's ideas on medicine. Greek physicians at the Persian Court. Relations to the medicine of India; Susruta and Charaka, their probable dates.

LECTURE IV.—The Asklepiadae. Public medical appointments. Health temples and medical schools of Greece; Epidauros; recent excavations; methods of healing employed; popular estimation.

LECTURE V.—Hippocrates (*c.* 430 B.C.); life and work; anatomical knowledge; Aphorisms; treatment of pneumonia and of fractures; case records; malaria in ancient Greece.

LECTURE VI.—Aristotle (*c.* 350 B.C.); relations to medical science. Alexander the Great; his interest in medicine; foundation of Alexandria; its Museum and Medical School; Herophilus, Erasistratus, Hero; teaching of Anatomy.

LECTURE VII.—Rise of Greek Medical 'Systems.' Early Roman medicine; Etruscan surgery; medical precepts of Cato (234-149 B.C.); his dislike of Greek doctors. Scribonius Largus. Celsus (*c.* 50 A.D.); use of the ligature in surgery; cataract operation; radical cure of hernia.

LECTURE VIII.—Pliny (23-79 A.D.); his descriptions of remedies; his death. Surgical instruments found at Pompeii. Aretaeus. Dioscorides (*c.* 100 A.D.); his *Materia Medica*.

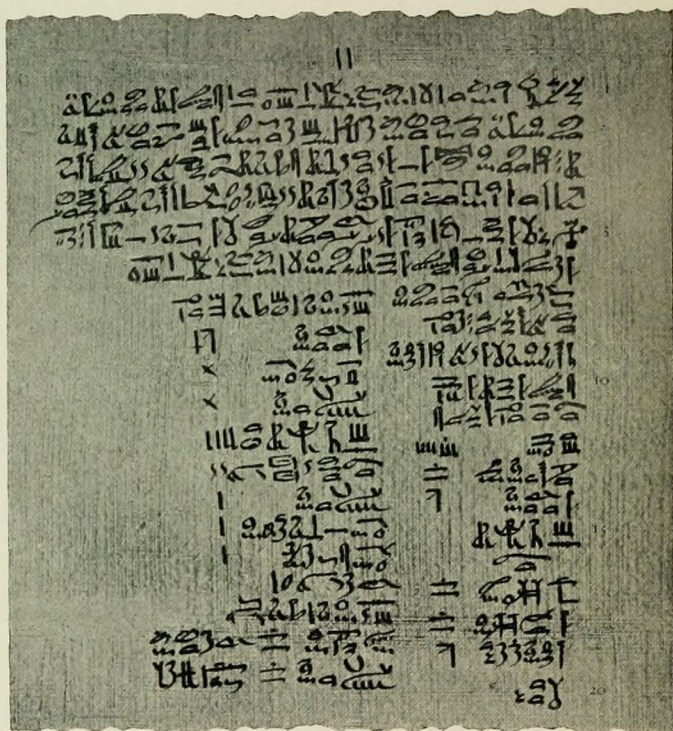
LECTURE IX.—Development of Medicine under the Empire. Galen (130-200 A.D.); his early training; surgeon to gladiators; practice as a physician in Rome; public lectures; relations to the Court. Standing of the profession; fees; quacks; oculists; army medical officers; medicine in the provinces.

LECTURE X.—Writings of Galen; their number; his knowledge of physiology; his work on Dissection; his methods of treatment.

HISTORY OF MEDICINE

SPECIMEN EXTRACTS

PAPYRUS EBERS



THE *Papyrus Ebers* is the oldest known book upon medicine. It was compiled, according to Professor Ebers, prior to 1500 B.C., and was purchased by him in Egypt in 1872, having been found between the legs of a mummy near Thebes in 1858. It comprises 110 pages, and is written in hieratic characters with red and black ink. The lines read from right to left. In the translation given opposite the words printed in italics correspond to red characters in the original, the rest are black.

1. So many chapters there are to tell how it ought to be, a thousand times. Chapter of the drinking of remedies. These are

2. the remedies, that is, to drive away all sorts of things from this my heart and these my limbs; mighty are the words of power

3. over the remedies. Once again. Do I not remember how there were brought Horus and

4. Set to the great fore-court at Heliopolis that one should take counsel upon the testes of Set and Horus may be

5. well, as he was on earth. He does all things as he will, like the things among the Gods, that

6. are there. *Wants to speak of the drinking of remedies, as it should be, a thousand times.*

7. *Beginning of the book of the remedies. Aperient medicine:*

8. To drive out diseases in the body. Milk $\frac{1}{2}$ dena

9. Tchaui-grains to be mixed with beer. Round dough $\frac{1}{2}$ dena

10. and to be drunk by the sick man. Honey. $\frac{1}{2}$ dena

11. Another for pain in the belly. Boil, strain, and take four days.

12. Camway. $\frac{1}{2}$ dena. Another to produce purgation, Honey. $\frac{1}{2}$

13. Goose-fat. $\frac{1}{2}$ dena. Powdered onion (?) $\frac{1}{2}$

14. Milk. $\frac{1}{2}$ dena. Mynyth powder. $\frac{1}{2}$

15. Boil, strain, and eat. Of this make a pill. Purgative medicine.

16. Another. Field-herbs. $\frac{1}{2}$ dena. Honey. $\frac{1}{2}$ } Boil together and eat.

17. Figs. $\frac{1}{2}$ dena. Sweet beer. $\frac{1}{2}$ dena

18. As before. As before.

19. As before.

20. As before.

Page 29. Another means to become free of spots on the skin produced by icheda —

Saccharine seeds $\frac{1}{2}$

Interior of onions (?) $\frac{1}{2}$

Green lead-earth (?) $\frac{1}{2}$

Raisin seeds $\frac{1}{2}$

Acarifras resin $\frac{1}{2}$

Turpentine resin $\frac{1}{2}$

Cow's milk $\frac{1}{2}$

Thoroughly boil and drink four days.

Page 107. When thou meetest with a fatty tumour in any part of a person, and findest that it goes and comes under thy fingers and also grooves when thy hand is still, say then of it "It is a fatty tumour, I will treat the disease." Treat then it with the knife, and heal it as one heals an open wound.

Iliad ii. 719. And of them that possessed Tricke and terraced Ithome, and that possessed Oichalia, city of Euryton the Oichalian, of these again Asklepius's two sons were leaders, both good physicians, Podaleirios and Machaon. And with these were arrayed thirty hollow ships.

iv. 213. And anon he (Machaon) drew forth the arrow from the clasped belt; and as it was drawn forth the keen barbs were broken backwards: and when he saw the wound where the bitter arrow had lighted he squeezed out the blood and skilfully speeded thereon soothing drugs, such as Chiron of his good will had imparted to his father.

xi. 514. For a physician is worth many other men, to cut out arrows and to spread soothing drugs.

xi. 844. There he stretched him at length, and cut with a knife the sharp arrow from his thigh, and washed from it the black blood with warm water. And on it he cast a bitter root rubbing it between his hands, a root that took pain away and ended all his anguish. And the wound became dry and the blood ceased.

xiii. 558. And the great-hearted Agamemnon drew out the spear from the hand, and bound it up with a bandage of well-twisted sheep's wool, in a sling.

xvi. 27. . . . and smitten is Eurypylos in the thigh with an arrow. And about them the physicians skilled in medicines are busy, healing their wounds.

Odyssey iv. 219. Then Heles, daughter of Zeus, turned to new thoughts. Presently she cast a drug into the wine whereof they drank, a drug to kill all pain and anger, and bring forgetfulness of every sorrow. . . . Medicines of such virtue and so helpful had the daughter of Zeus, which Polydamna the wife of Theon had given her, a woman of Egypt, where Earth the grain-giver yields herbs in greatest plenty, many that are healing in the cup, and many baneful. There each man is a physician skilled beyond all other men: for indeed they are of the race of Pallos.

xvii. 182. For whoever himself seeks out and calls to a feast a stranger from afar, save one of those who are workers for the people, a prophet or a healer of diseases, or a builder of ships, or even a godlike minstrel, who can delight all with his song? [Nay these are men that are welcome over all the wide earth.]

PLATO (born 429 B.C.), in his ideas upon the constitution of the body and treatment of disease, represents the philosophers before his time and especially the followers of Pythagoras. These apparently studied medicine as well as the Asclepiadeans.

ΠΛΑΤΩΝΟΣ ΤΙΜΑΙΟΣ

τὸς μὲν δὲ θύειν τεκίλοντι δύο σῖναι, τὸ τοῦ παντὸς σχῆμα ὑπερμεγέθησιν περιβαρὺς ἐστὶν, αἱ σφαιρικαὶ σῖμαι ἰσίδουσι ταῦτο ἢ τὴν κορυφὴν ἐννομεύμεναι, ὃ θεώσαντι τ' ἴσθι καὶ νῦν ἐν ἡμῖν πάντων δευποτοῖν. . . .

καὶ διὰ ταῦτα δὲ, συμβῆναι μοίεται τὸ θύειν ὃ τι μὴ πῶσα ἔνι ἰσίδες, χωρὶς ἰσίδων καταμείψαντων εἰς ἄλλαν τοῦ σώματος αἰσχυρὴν τὸ θυγαῖρ, ἰσθμὸν καὶ ἔστιν ἀκαταμήμεναι τῇσι τε κορυφαῖς καὶ τοῦ στήθεος, αἰχμὰς μεταξὺ τιθέντες ἵνα εἴη χωρὶς ἐν δὲ τοῖς στήθεσι καὶ τῷ κατωτέρῳ θάρσει τὸ τῆς ψυχῆς διαγνῶν γένος ἰσίδων. . . .

τῇσι δὲ ἐν κορυφαῖς ἄραι τῶν φλεβῶν καὶ τερτῇ τοῦ περιφερύμενος κατὰ σῖναι τὰ μέλα σφαιρῶς αἰσχυρὴν εἰς τῇσι κορυφαῖσιν αἰσχυρὴν κατέστησαν, ἵνα ὅτε ῥοαὶν τὸ τοῦ θυγαῖρ μῖνον, τοῦ λόγου παρεγγυλλαντες, ὡς τις ἀέρας περὶ αὐτὰ γίγνεται πρᾶξις ἔξωθεν ἢ καὶ τις ἀπὸ τῶν ὑπὸθεν ἐπιθυμῶν, ὥςτις διὰ πάντων τῶν σπουσῶν πᾶσι ἴσων αἰσθητῶν ἐν τῷ σώματι τῶν τε παρακελεύσεων καὶ ἀπειλῶν αἰσθημένων γίγνεται ἐσθλὸς καὶ ἴσων πάντων. . . .

ἐννοοῦνται αὐτῇ μηχανήματα τῇσι τοῦ πλείονος ἔξω ἀεφύονται, πρῶτον μὲν μελαγχρὴ καὶ ἀσπρῶν, οἷα πύραργας ἐπὶ τοῖς ἔξωθεν εἶναι σπύργους κατατετραμένους, ἵνα τὰ τε πρῶτα καὶ τὸ πᾶν ἐκχωρήσῃ, ψύχουσα ἀσπρῶν καὶ ῥοαῖσιν ἐν τῷ στήθεσι παρέχαι· διὰ δὲ τῇσι ἀσπρῶν ὀχέοις ἐπὶ τῶν πλείονων ἴσων, καὶ περὶ τῇσι κορυφαῖς αὐτῇσι παραστήσαντες εἶναι μέλας, ἵνα ὃ θυγαῖρ ἴσων ἐν αὐτῇ ἀεφύει, πρῶτον εἰς ἴσων καὶ ἀσπρῶν μῖνον, ποσειδᾶ ῥοαὶν, μάλλιν ἐν λόγῳ μετὰ θυγαῖρ δύναντο ὑπερτεῖναι.

τὸ δὲ ἐν σῖναι τε καὶ πρῶτον ἐπιθυμῶν τῇσι ψυχῇ καὶ ἴσων ὄντων διὰ τῇσι τοῦ σώματος ἵσων φύσει, ταῦτα εἰς τὰ μεταξὺ τῶν τε φρενῶν καὶ τοῦ πρῶν τῶν ἐμφανῶν ἔστιν ἐκτέτακται. . . .

διὰ δὲ καὶ ὅταν τῇσι ἀσπρῶν γίγνεται διὰ λόγους σώματος περὶ τὸ ῥοα, σῖναι ἢ σπληνὸς καθαίρωνται αὐτὰ δίχεται μεσότης, ὅτε καὶ οὐ καὶ ἀσπρῶν ἰσίδων· ὅταν πλείονων τῶν ἀσπρῶν μῖνον καὶ ὅταν αἰσθῆται, καὶ πάλιν, ὅταν καθαρθῇ τὸ σῖμα, ταπεινῶμενος εἰς αὐτῇσι ῥοαῖσι. . . .

PLATO'S *TIMAEUS* (Jowett's Translation)

First, then, the gods, imitating the spherical shape of the universe, enclosed the two divine courses in a spherical body, that, namely, which we now term the head, being the most divine part of us, and the lord of all that is in us. . . .

Wherefore, fearing to pollute the divine any more than was absolutely unavoidable, they gave to the mortal nature a separate habitation in another part of the body, placing the neck between them to be the isthmus and boundary, which they constructed between the head and breast, to keep them apart. And in the breast, and in what is termed the thorax, they enclosed the mortal soul. . . .

The heart, the knot of the veins and the fountain of the blood which races through all the limbs, was set in the place of guard, that when the might of passion was roused by reason making proclamation of any wrong assailing them from without or being perpetrated by the desires within, quickly the whole power of feeling in the body, perceiving these commands and thence, might obey and follow through every turn and alley. . . .

[The gods] formed and implanted as a supporter to the heart the lung, which was, in the first place, soft and bloodless, and also had within hollows like the pores of a sponge, in order that by receiving the breath and the drink it might give coolness and the power of respiration and alleviate the heat. Wherefore they cut the air-channels leading to the lung, and placed the lung about the heart as a soft spring, that, when passion was rife within, the heart, beating against a yielding body, might be cooled and suffer less, and might thus become more ready to join with passion in the service of reason.

The part of the soul which desires meats and drinks and the other things of which it has need by reason of the bodily nature, they placed between the midriff and the boundary of the navel. . . .

And hence, when any imperitties arise in the region of the liver by reason of disorders of the body, the loose nature of the spleen, which is composed of a hollow and bloodless tissue, receives them all and clears them away, and when filled with the unclean matter, swells and festers, but, again, when the body is purged, settles down into the same place as before and is humbled. . . .

ὡς δὲ τὸν καθάρουσι καὶ ζυγίσουσιν τοῦ σώματος ἢ μὲν διὰ τῶν γυμνασίων ἀρίστη, δευτέρῳ δὲ ἢ διὰ τῶν κωλύσεων κατὰ τὰς αἰσθῶν καὶ ὅσων παρὰ τὴν ἀσκήσιν ἔσονται γυγνύσκει· τρίτον δὲ οὖτος καθάρουσι σφόδρα ποτὶ ἐκφυλαγμένην χρῆσιν, ἅλλως δὲ οὐδενὸς τῶν κατὰ ἔχουσι προστάτων, τὸ τῶν φαρμακευτικῶν καθάρουσι γυγνύσκει ἰατρικῶς· τὸ γὰρ ἰατρικόν, ὅσα μὲν μεγάλῃς ἔχει κινήσεισι, οὐκ ἐμμετρίως φαρμακεύει.

Ἰσὺ δὲαι τοις παρὰ τῆς εὐαφρίτης τοῦ χρόνου φθίσει φαρμακεύει, ὅσα ὡς σμικρῶν μεγάλῃ καὶ πολλὰ ἐξ ἄλλων ἰατρικῶν φιλοὶ γυγνύσκει. διὰ τοιοῦτον δὲ καίτοι πῶς τὰ ταῦτα, καθ' ὅσον δὲ ἢ τῇ σχολῇ, ἀλλ' οὐ φαρμακεύοντε καὶ οὐκ ἰατροὶ ἐμμετρίως.

HIPPOCRATES (c. 460-355 B.C.), the 'Father of Medicine,' came of an Aristocrat family at Cos.

ΙΠΠΟΚΡΑΤΟΥΣ ΑΦΟΡΙΣΜΟΙ

1. 1. ὁ βίαιος βροχίς ἢ διὰ τῆς ἀσκήσεως, ὁ δὲ κωπὸς ἄξις, ἢ διὰ πόνου σφοδρῆς, ἢ διὰ κρύου χυλιδῆς, διὰ δὲ οὐ μόνον ταῦτα παύσκει τὰ δυνάτα συμβῆναι, ἀλλὰ καὶ τὰς νοσήσας καὶ τὰς παρῆναι καὶ τὰ ἔξωθεν.

ὁ δὲ διὰ τὰ ἔσχατα νοσήσας καὶ ὁ σφικτός θανάσιμος ἐκ ἀσκήσεως ἀρτίως.

12. γινώσκοντες ἐκφυλάττειν νοσήσας φάρμακα, ἵατρικον οὐ καθήκοντος, ὅσατα μακρόν, πῶς δὲ μάλιστα ταῦτα, νοσήσας διὰ πόνου ὁ δὲ τῆς αἰσθῶνς προδιδόμενα ὅσατα.

20. τὰ κινήματα καὶ τὰ κακώματα ἔστιν μὲν κινήσει μὲν ἰατροποιοῦν μὲν φαρμακεύει, μὲν ἄλλως ἐμμετρίως, ἀλλ' οὐκ.

24. ἐν τοῖσι ἔξωθεν νόσους ἐλπίσκει καὶ ἐν ἀσκήσει τῆς φαρμακεύσεως χρῆσθαι, καὶ τοῖσι σμικρῶν νοσήσας ταῦτα.

11. 2. ὅσα παρὰ φάρμακα ἵατρικον παύει ἀσκήσας.

7. τὰ ἐν πολλῷ χρόνῳ λατυνόμενα σώματα κατὰ τὴν ἵατρικον τῆς αἰσθῶνς, τὰ δὲ ἐν ὀλίγῳ ὀλίγως.

16. ἵατρικον, οὐ καὶ τὰς νοσήσας.

33. ἐν πόνῳ καὶ τῷ ἐκφυλάττειν τὸν ἵατρικον καὶ τὸ ἔχειν πρὸς τὸν προσφορὸν ἀσκήσας, τὸ δὲ ἵατρικον καὶ οὐ.

41. οἱ ἐκφυλάττειν πολλὰ καὶ ἰσχυρῶς ἵατρικον φανερῶς ἐκφυλάττειν ἐκφυλάττειν.

44. οἱ παχίως σφόδρα κατὰ φύσιν ταχυνόμενα γίνονται μάλιστα τὸν ἵατρικον.

III. 10. τὰ ἐκφυλάττειν τὸν ἵατρικον καὶ οὐ.

Wherefore of all modes of purifying and reuniting the body the best is gymnastic; the next best is a surging motion, as in sailing or any other mode of conveyance which is not furling; the third sort of motion may be of use in a case of extreme necessity, but in any other will be adopted by no man of sense: I mean the purgative treatment of physicians; for diseases unless they are very dangerous should not be irritated by medicines.

If any one regardless of the appointed time tries to subdue them by medicine, he only aggravates and multiplies them. Wherefore we ought always to manage them by regimen, as far as a man can spare the time, and not provoke a disagreeable enemy by medicines.

APHORISMS OF HIPPOCRATES

1. 1. Life is short, the art long, the occasion fleeting; experiment is dangerous and judgment difficult. It is not only necessary that one should hold himself in readiness to do what is requisite, but that one should cause the sick man, the attendants, and the external circumstances to co-operate.

6. For the extremest diseases, the extremest remedies are precisely the best.

13. Old people bear fasting most easily; next adults; worst young people, especially children, and of these such as happen to be the more lively.

20. Do not move cases at the crisis or those that have just passed it, nor make any new treatment either by drugs or other stimulants, but let them alone.

24. In the acute diseases use purgatives little and at the beginning only, and do so with proper food-drught.

[1. 2. When sleep puts an end to delirium, it is a good sign.

7. Bodies which are emaciated after a long time must be fed up slowly, those which are quickly emaciated must be quickly fed up.

16. One must not labour when hungry.

33. In every disease soundness of intellect and readiness for whatever food be set down is a good sign. The contrary is bad.

41. Those who swoon frequently and severely without apparent cause, die suddenly.

44. Those who are very fat by nature tend to die more speedily than the spare.

[11. 19. Astoria is bad for consumptives.

IV. 75. ἢν αἷμα ἢ πῖος αἶμα τῶν νεφρῶν ἢ τῆς κύστης ἔλκουσι σφραῖναι.

76. ὁδύσασαι ἐν τῷ αἵμα ταχὺ ἔστι σαρκαί μὲν ὡσπερ τρίχες συναφίζονται, τοιούτως δὲ τῶν νεφρῶν ἰκαίονται.

77. ὁδύσασαι ἐν τῷ αἵμα ταχὺ ἔστι περιβάλλει συναφίζονται, τοιούτως ἢ κύστις φέρεται.

81. ἢν αἷμα καὶ πῖος αἶμα καὶ λιπῶν καὶ ὀτρὴ βαρὴ δὲ τῆς κύστης ἔλκουσι σφραῖναι.

V. 6. ὁδύσασαι ἐπὶ πέποιε ἄλλοκοται, ἐν τούτοις ἡμέραις ἀπώλλονται, ἢ ἐπὶ τούτοις ἀσφύγξασαι ὅπως γίνεται.

9. φθόνος γίνεται μάλιστα ἡλικίῃς τῶν ἐπὶ ἰατρικῶν ἐπὶ μίχμα πέντε καὶ πρῶτα ἐπὶ.

13. ὁδύσασαι αἷμα ἀφῶναι ἀσπύγξασαι τοιούτως ἐν τῷ πλείοντι ἢ πέντε ἡμέραις γίνεται.

14. ἐπὶ φθόνος ἰκαίται ἀσφύγξασαι περιβάλλει, θανάτῳ.

15. ὁδύσασαι ἐν πλείοντι ἡλικίῃς γίνεται, ἢ ἀσπύγξασαι ἐν τούτοις ἡμέραις ἀφ' ἧς ἂν ῥῆμα γίνεται καίεται, ἢ ἐπὶ ἢ ἐπὶ φθόνος μάλιστα.

20. γυναῖκα ἐν γαστρὶ ἰκαίται ἐπὶ πῖος τῶν ἰσχυρῶν τοιούτως ἀσφύγξασαι θανάτῳ.

33. γυναῖκα τῶν κατὰ τὴν ἰατρικὴν ἰκαίται αἷμα ἐν τῷ μίχμα πέντε ἡμέραις.

37. γυναῖκα ἐν γαστρὶ ἰκαίται ἢ ἐπὶ μίχμα ἰκαίται ἰσχυρῶν γίνεται ἀσπύγξασαι.

49. ἰσχυρῶν ἰκαίται σφραῖναι περιβάλλει ἰσχυρῶν τοιούτως αἷμα καὶ τὸ σπέρμα.

VI. 33. ὁδύσασαι καρτεροὶ καρτεροὶ γίνεται, μὲν θανάτῳ βίλτος. θανάτῳ μὲν γὰρ ἀπώλλονται ταχὺ, μὲν θανάτῳ μὲν δὲ πολλὰ χρόνῳ ἀσφύγξασαι.

41. ὁδύσασαι ἀσφύγξασαι τὸ δὲ ἐν τῷ σπέρμα μὲν ἀσφύγξασαι, τοιούτως δὲ ταχὺ τῶν πῖος ἢ τοῦ πῖος, οὐκ ἀσφύγξασαι.

49. ὁδύσασαι τοιούτως ἀσφύγξασαι γίνεται, τούτοις ἀσφύγξασαι ἐν τούτοις ἡμέραις ἀσφύγξασαι.

57. ἀσφύγξασαι δὲ μάλιστα γίνεται ἡλικίῃς ἐπὶ ἐπὶ τούτοις ἡμέραις ἰκαίται ἰσχυρῶν.

VII. 18. ἐπὶ φλεγμονῇ τοῦ ἥπατος λίγξ καίει.

34. ὁδύσασαι δὲ ἐπὶ τούτοις αἷμα ἀσφύγξασαι περιβάλλει, σφραῖναι σφραῖναι καὶ μάλιστα ἀσφύγξασαι ὅπως.

53. ὁδύσασαι σφραῖναι αἷμα ἀσφύγξασαι ἐπὶ τῶν φλεβῶν τοιούτως σφραῖναι ἐπὶ φλεβῶν σφραῖναι.

87. ὁδύσασαι αἷμα αἷμα ἰσχυρῶν ὅπως, ὅπως σφραῖναι αἷμα ἐπὶ ἰσχυρῶν, ὅπως δὲ ἐπὶ αἷμα ἰσχυρῶν τούτοις χρόνῳ σφραῖναι.

HIPPOCRATES—continued

IV. 75. If blood or pus is passed in the urine, it indicates ulceration of the kidneys or bladder.

76. When little pieces of flesh, like hairs, are passed in thick urine they are secreted from the kidneys.

77. When urinary scales are passed in thick urine, there is disorganization of the bladder.

81. If one passes blood, pus, and scales in the urine, and if there is a heavy smell, it indicates ulceration of the bladder.

V. 6. Those who are seized by tetanus die in four days, if they escape these they recover.

9. Phthisis arises chiefly at ages from eighteen to thirty-five years.

13. Those who spit up frothy blood bring this up from the lung.

14. In one affected by phthisis the appearance of diarrhoea is a deadly sign.

15. When an empysema develops in patients from pleurisy, if they get clear of it in forty days after it bursts it is checked, if not they fall into consumption.

30. It is deadly for a pregnant woman to be attacked by any of the acute diseases.

35. It is a good thing for a woman whose menses have stopped when blood runs from the nose.

37. In a pregnant woman if the breasts suddenly lose their firmness she miscarries.

49. To expel the afterbirth apply a sternutory and hold the nostrils and the mouth.

VI. 38. It is better not to treat those who have deep-seated cancers; for those who are treated quickly perish, those who are not treated last a long time.

41. When there is any suppuration in the body but it does not point, it fails to appear either owing to the thickness of the pus or of the part.

49. When gouty manifestations appear they lose their inflammation and are recovered from in forty days.

57. Apoplexy most commonly arises at an age between forty and sixty years.

VII. 18. Hiccup is a bad sign in inflammation of the liver.

34. When bubbles settle upon the urine, they indicate disease of the kidneys and a protracted illness to come.

53. Those who are besetted by blood-letting are best bled in spring.

87. The diseases that drugs do not cure the knife cures, those that the knife does not cure the caustery cures, those that the caustery does not cure must be judged incurable.

ΙΠΠΟΚΡΑΤΟΥΣ ΠΡΟΓΝΩΣΤΙΚΟΝ

τὸν ἥττον δακίον μὲν ἄριστον εἶναι πρόνοιαν ἐπιτηδεύειν, προγινώσκων γὰρ καὶ προλέγων παρὰ τοῖσι νοσήσιν τὰ τι ταρτέτα καὶ τὰ προγινώσκοντα καὶ τὰ μάλιστα ἀνέσθαι, ὡς οὐκ τε παραλείπονται οἱ ἀποθνήσκοντες ἀποφροσύνῃσι, πιστεύουσ' ἐν μάλιστα γινώσκοντι τὸ τῶν νοσήσων πρῆγμα, ὥστε πολλὰν ἐπιτρέψει τοῖς ἀθεράστοις σφῶσι ὡςτοῖς τῷ ἥττι.

οὗτω γὰρ ἂν θεράζεσθαι τε δακίον καὶ ἥττον ἄραθαι ἂν εἴη, καὶ γὰρ οὗς οἷον τι περιγίνασθαι, καίτοις ἐν μάλιστα ὄναισ' ἂν ὀρθῶς διαφιδάσκωνται, ἐκ πλείονος χρόνου προβουλεύοντες πρὸς ἑαυτοὺς, καὶ τοῖς ἀπεθανευσάντων τε καὶ σὺνθροαίνοντες προγινώσκων τε καὶ προγινώσκων ἀνέσθων ἂν εἴη.

τοῖς δὲ ξήμασιν ἡσπύοντι γινώσκων γὰρ, ταῦτα ταῖσι τεχνίοισι, τρώων μὲν εἰ ὁ πυρετός οὐκ ἐφύκει, ἀλλὰ τῆς μὲν ἡσπύρας λατὴν ὄχει, τῆς δὲ νύκτα πλείων, καὶ ἡρώτεσι πολλοὶ ἀπερμόσωνται, βῆχας τε καὶ θροῖς ἐγγίγνεται αὐτοῖσιν, καὶ ἀποστρίψοντι οὐδὲν ἔξω λόγῳ, καὶ αἱ μὲν ὀφθαλμοὶ ἐκκαίοντες γίνονται, αἱ δὲ γυνῆσι ἡσπύματα ὄχειται, καὶ αἱ μὲν ὄνυχες τῶν χειρῶν γροττοῦνται, οἱ δὲ δάκτυλοι θερμαίνονται καὶ μάλιστα ἄκρος, καὶ ἐν ταῖσι πυρετοῖς αἰσθήματα γίνονται, καὶ σπύλαι οὐκ ἐπιθνήσκουσι καὶ φλέσκονται γίνονται ἐπὶ τὸ σῶμα. ἄριστον μὲν οὖν ἐγγρησίζεαι τῶν ἡσπυράτων ἔχει τὰ τεχνία τοῖς καὶ πιστεύειν αἰσθῶσι γὰρ αἶμα.

τῶν δὲ ἡσπύων τῶν ἀπὸ τῶν συμπελευμενῶν εἰ γρησίζοντες πολλοὺς ἀπόλλυνται. ἐκ δὲ τῶν ἄλλων ἡσπυράτων εἰ ταῦτοισι πολλοὺς ἀποθνήσκουσιν.

ἰσώων δὲ τῶν ἡσπύων καίνονται, οἷον ἂν καθαρὸν μὲν τὸ πῖον ἢ καὶ δακίον καὶ μὴ ἀσώδες, σφύονται· οὗτοι δὲ ὀφθαλμοὶ τε καὶ βροχίονες ἀπόλλυνται.

ΠΕΡΙ ΑἲΘΡΩΝ

ἰσώωνται δ' ἐν τὸ ἔξω ἢ τῷ μεγάλῳ κεφαλῇ ἐνβῆ, ταῦτασι βροχίονες μὲν τὸ σκόλος φαίνεται παρατενέχοντες παρὰ τὸ ἔσπερον αἰκίοντα. αἱ γὰρ ἐπ' ὅστις ἢ ἐπίβουσι τῆς κεφαλῆς τῷ μεγάλῳ ὄντι, ὡς ὅτε εἶναι ἔξωπτεται, ἀλλὰ παρ' ὅστις παρακεκαμμένον τῆς φέου ἐχει· ἐν σαρκὶ δὲ σταθίζονται ἔργῃ καὶ ἵπποκοσῃ, ἐπὶ τοῖς μὲν βροχίονες φαίνεται, ἴσως δὲ ὁ μὲν παρὰ τῆς πληγῆς κατεσπύοντες κυλλότερος καὶ σαρκοτέρος γίνεται, ἔξωθεν δὲ ὁ γλαυτός κυρτότερος, ὅτε ἐν τὸ ἔξω τῆς κεφαλῆς τῷ μεγάλῳ ἀποθνήσκουσιν. ἀπὸρ καὶ ἀνοστήτω φαίνεται ὁ γλαυτός, ὅτε ὑπερῆκε τῆς σαρκὸς τῆς ἰσώου ἐν τῷ μεγάλῳ κεφαλῇ. εὖ δὲ παρὰ τὸ γένος τοῦ μεγάλου ἔκρον οὐκ ἔστιν φαίνεται καὶ ἡ αἰμαξ καὶ ὁ πόνος. ὅταν αὖτε ἐγγρησίζονται ὥστε τὸ ἔργον σκόλος ὄνεται.

PROGNOSTICS OF HIPPOCRATES

It seems to me desirable that the physician should practise prognosis. For by foreseeing and foretelling the presence of the sick the actual symptoms, and the past and future ones as well, explaining all that the patients are neglecting, he would be supposed to understand the condition of the sick, so that men would have confidence in submitting themselves to this physician.

For thus he would win just respect and be a good physician. For by an earlier forecast in each case he would be still more able to tell those aught who have a chance of surviving, and by foreseeing and stating who will die and who will survive he will escape blame.

All cases of erysipelas should be recognised by these symptoms. First, if the fever does not disappear but is slight by day, more severe by night, and heavy sweats come and desire to cough assail them, though there is no spit worth mentioning, the eyes are sunken and the cheeks have red spots, the nails of the hands become hooked and the fingers are hot, especially at their ends; swellings of the feet appear, there is no desire for food, and blabs break out over the body. All cases of chronic erysipelas present these signs, which can be absolutely relied upon.

Of people who develop erysipelas after *pneumonia*, the elderly die most readily. In erysipelas due to other causes, the young rather die. . . . Of all patients with erysipelas that are cauterised those whose pus is clear, white, and not evil-smelling are saved; those the whose pus is slightly bloody and turbid.

ON ARTICULATIONS

When the head of the femur is dislocated outwards, the leg when extended alongside the other naturally looks shorter. For the head of the femur does not rest on a bone as when dislocated inwards, but along a bone having an inclination to the side. It is embedded in soft yielding flesh, and hence its appearance of shortness. On the inside the hip in the region of the perineum, as it is called, is hollower and more fleshy. On the outside the buttock is rounder, seeing that the head of the femur has slipped outwards; but the buttock appears higher up because the flesh there makes way for the head of the femur. The end of the femur at the knee seems turned inwards, and the leg and foot too. Neither can they be fixed like the injured limb.

ΠΕΡΙ ΤΩΝ ΕΝ ΣΕΦΑΛΗ ΤΡΟΜΑΤΩΝ

[illegible]

ΑΡΧΕΤΟΙ ΤΗΣΣΑΡΕΣΚΑΙΔΕΚΑ (Ποσειδών)

Φιλόσοφοι ὡς καὶ τὰ τεῖχος, κατακλῖθι τῇ πρώτῃ, περὶ τοὺς ἄλλους ἔρωμαι· ἐν γὰρ νύκτι ἐκείνῃσι ἀντίστοιχα πάντα παραφρίθῃ, ἀπὸ δὲ ἀπὸ κλισματίου καλῶς διέλθῃ, νύκτα δὲ ὄψιμον, τῇ πρώτῃ καὶ μέγα μέγεθος ἔσθῃς ἐκδοξάμενος ἀπύρετος πρὸς δοῦλον δὲ σφαγῆς ἄλλῃ μετὰ ἑαυτοῦ, ἀφ᾽ ὧν γλυῖστα δὲ ἐνδοξαίμενα μάλιστα ἀφ᾽ ὧν, νύκτα ἀσφάδου, ἐν ἐκκμήθῃ, τῶντα παρέκρουσι, πικρότη πύκτι παραφρίθῃ, οἷα μάλιστα, νύκτα εὐφροσύνης, οἷα εὐχρηστότης, πύκτι τῇ μῶτον ἑαυτοῦ, μικρὸν ἀπὸ μῶτον ἀπύρετον ἀφ᾽ ὧν, οἷα δὲ τοιαῦτα, ἔχοντα ἐκκμήθῃ προσηγνῆς γυναικὸς, ἐκκμήθῃ, οἷα ἔρωμαι, προσφῆμι δὲ βλάπτει φουδὸς σφαγῆς διέλθῃ, νύκτα ἐκκμήθῃ, οἷα σφαγῆς, λίγαι, λίγαι, ἀφ᾽ ὧν τῶντα φουδὸς καὶ οἷα ἐν ἐκκμήθῃ, οἷα σφαγῆς, οἷα μάλιστα, ἐκκμήθῃ σφαγῆς πρὸς ἑαυτοῦ, ἀφ᾽ ὧν, ἔρωμαι φουδὸς, ἀφ᾽ ὧν τῶντα, οἷα δὲ μῶτον ἑαυτοῦ ἐκείνῃσι ἀφ᾽ ὧν, τῶντα πύκτι δὲ τῶντα ἀφ᾽ ὧν ἐκκμήθῃ, ἀφ᾽ ὧν μῶτον σφῆς ἐκκμήθῃ σφαγῆς κηρύττει, ἐκκμήθῃ φουδὸς δὲ τῶντα, οἷα παραφρίθῃ ἐν ἀφ᾽ ὧν.

ON INJURIES OF THE HEAD

When one has recognized that a bone is comminuted or broken or contused or damaged in any way, and has made the mistake of not scraping or sawing it though it required this, in the belief that the bone is healthy, fever will ensue (the patient) before the fourteenth day as a general rule in winter, or after the seventh day in summer . . . and corrosion scies most on the opposite side of the body. If the wound is on the left of the head the corrosion scies the right side of the body; and if the wound is on the right of the head the corrosion scies the left side of the body. Some actually become paralyzed, and die thus within seven days in summer and fourteen in winter . . . If you wish at once to saw down to the membrane and then take away the bone, you must in the same way draw out the saw frequently and dip it in the cold water. If you do not receive the treatment from the beginning, but take it over from some one else to complete the cure, you must at once saw the bone down to the membrane with a serrated trephine; and often taking out the trephine you must examine particularly with the probe around the track of the trephine. For the bone is much more readily sawn through if you saw when it is already tending to suppuration and infiltrated with pus; and often the bone is found to be a mere surface covering, particularly if the damaged part is in that region where the bone is thinner than in other parts.

FOURTEEN CASES OF SICKNESS (CASE 1)

Phileon lived by the wall and took to bed on the first day with a sharp fever. He sweated and passed a very bad night; on the second day all the symptoms aggravated. Late in the day after a clyster he passed a good stool and had a quiet night. On the third day early in the morning and till midday he seemed to become free of fever. Toward afternoon the fever high, after sweating thirst, and the tongue was dry on the surface. He passed black urine, night very bad, did not sleep, and was quite delirious. On the fourth day all the symptoms aggravated, urine black; night well borne and urine a better colour. On the fifth day about noon, a little pure blood trickled from the nose. Urine varied in colour, having floating in it intermittently rounded seed-like bodies. He did not settle, and a suppository being introduced, a few flatulent motions passed. Night bad, sleep little, talking nonsense, extremities quite cold and no longer capable of being warmed; urine black; slept a little towards day; voiceless; had a cold sweat; extremities livid. About noon on the sixth day he died. The breathing throughout was like that of a man holding himself in, infrequent and deep; the spleen was raised into a rounded swelling, the sweats cold throughout, and the parosisms on the even days.

ΠΕΡΙ ΤΑ ΖΩΙΑ ΙΣΤΟΡΙΑΙ

φάνησι δ' ἐκ τοῦ ὀφθαλμοῦ τρεῖς πόροι εἰς τὸν ἐγκέφαλον, ὁ μὲν μέγιστος καὶ ὁ μέσος εἰς τὴν παρεγκεφαλίδα, ὁ δ' ἐλάχιστος εἰς αὐτὸν τοῦ ἐγκέφαλου· διαίχυστος δ' ἐστὶν ὁ πρὸς τῇ μεσότητι πόρος· οἱ μὲν αὖτε μέγιστος καὶ ἐλάχιστος εἰσὶ καὶ οὐ συμμετρίους, εἰ δὲ μέσος συμμετρίους (ὅθεν δὲ τοῦτο μάλατι δοῖ τὸν ἰχθύος)· καὶ γὰρ ἰσχυρότερος αὐτοῦ τοῦ ἐγκέφαλου ἢ οἱ μεγάλοι· οἱ δ' ἐλάχιστοι ἐλαϊότες τε ἀνίστηνται ἀλλήλων καὶ οὐ συμμετρίους.

φάνησι δὲ καὶ εἰς τὴν πλείωτον πόρος ἀπὸ τῆς καρδίας, καὶ σφίγγεται τὸν αἶμα πρότερον ἢ ὀργάνῳ, κατὰ τούτου τὴν πλείωτον παρεκκολλημένους τοῖς ἀπὸ τῆς ὀργάνου. ἐνταῦθα δ' εἰσὶν οἱ ἀπὸ τῆς καρδίας πόροι, αἵματι δ' ἐστὶ κοινὸς πόρος ἀλλὰ διὰ τὴν σπέρμιν ἰσχυνται τὸ πνεῦμα καὶ τῇ καρδίᾳ ὑπερέπαισι· πόρος γὰρ ὁ μὲν εἰς τὸ δεξιὸν κοίλον τοῦ σώματος, ὁ δ' εἰς τὸ ἄριστον.

τῶν δ' ἄλλων συλλέγεται ἡ καρδία μόνος ἔχει αἷμα, καὶ ὁ μὲν πλείωτον εἰς ἐκτὸς ἀλλ' ἐκ τῶν φλεβῶν, ἡ δὲ καρδία ἐκ αὐτοῦ· ἐκ ἐκτὸς γὰρ ἔχει αἷμα τὸν κοίλον, ἀποστέλλων δ' αὐτὸ τὸ ἐκ τῆς πόρος.

αὐτοὶ δ' ἔχουσι τοὺς βολίους ὅτε σπινθηροῦται πύοντι αἵματι, οἱ δὲ πόροι οὗ τοῦτον εἰς αὐτοῖς εἰς τὸ σῶμα καταναλίσκονται τὸν τερπνόν· σημαίνει δ' ὅτι οὐ σημαίνει, τὸ μὴ ἔχει αἷμα μόνον ἀφαιρούμεθα ἐκ αὐτοῦ, ἔχουσι δὲ κοίλον, ἐκ ἐκτὸς, μικρὸν. ἐκ δὲ τοῦ κοίλου τὸν τερπνόν φέρουσι εἰς τὴν κύστην τοῦ σώματος κοινῆς, καὶ ἄλλαι ἐκ τῆς ὀργάνου ἰσχυροὶ καὶ συνεχεῖς.

The medical school of Alexandria flourished from about 300 B.C., but of its most famous teachers, e.g. Herophilus and Erasistratus,

ΗΡΗΝΟΣ ΠΝΕΥΜΑΤΙΚΕΣ Βιβ. Β', Κεφ. ιθ'.

καὶ ὁ κοιλώμενος δὲ πνεῦμας διὰ ταύτης τῆς αἰτίας ἐμμελῶς κατασκευάζεται γὰρ αἰθέρους κοίλου ἐπιμαχῆς ὁ ΑΒ, ὃ ἑτέρος συνεσφραγισμένος ὁ ΓΔ εἰς τὸ μὲν Γ ἄκρον ἐπισφραγισθὲν λειπόμενος· πρὶν δὲ τῇ Δ ἐπισφραγίσῃ ἔχῃ τὸ ΕΖ, καὶ κατ' ΑΒ δὲ αἰθέρους τὸ πρὶν τῇ Α σφίγῃ ἐπισφραγισθὲν λειπόμενον ἔχῃ τὸν συνεσφραγισμένον λειπόμενον τὸ ΗΘ. ὅταν οὖν βαλεῖται πῦρ ἐλκεῖ, προσθίεται τῇ πόρῃ ἐκ τῆς πόρος ὅτι, τὸ ἄκρον τῶν σφραγίδων τὸ θ σφίγγει, ἐπισφραγισθὲν τὸ ΓΔ αἰθέρους διὰ καὶ ἐπισφραγισθὲν εἰς τὸ ἑστὸν μέγεθος· γινώσκοντες δὲ πόρος ἐκ τῆς ΑΒ αἰθέρους κοινῆς, ἀνίσταται εἰς ταῦτα ἄλλα τι ἐπισφραγισθὲν, μὴ ὅτετος αὖτε ἄλλος πόρος ἢ τοῦ πνεύματος καὶ σφραγισθὲν, ἀνίσταται δὲ ταῦτα τὸ σφραγισμένον ἰσχυρὸν ἐπισφραγισθὲν, τάλαν οὖν ὅταν ἴδωσι τι βαλεῖσθαι ἔργον, ἐμβάλλουσι αὐτὸ εἰς τὸν ΑΒ αἰθέρους καὶ καταλαβόμενον τὸ ΕΖ ἀνίσταται εἰς τὸ ΓΔ αἰθέρους βαλόμενον, ἔχει δὲ ἑστὸν αὐτοῖς ὅθεν ἢ ἵσταται γινώσκοντες.

especially in embryology; the instructor of Alexander the Great.

ARISTOTLE'S HISTORY OF ANIMALS, BOOK I

Three passages lead from the eye to the brain; the largest and the middle-sized to the cerebellum, the least to the brain itself. The least is that which is nearest the vessel; the greater are parallel and do not meet; but the middle-sized passages meet (this is most evident in fishes), and these passages are nearer to the brain than the larger; but the least are farthest removed from each other and do not meet.

Passages lead from the heart to the lungs and they are divided in the same way as the trachea, following the passages from the trachea throughout the whole lung, and the passages from the heart are on the upper side. There is no passage which is common to them both, but by their union they receive the breath and transmit it through the heart; for one of the passages leads to the right cavity and the other to the left.

Of all the viscera the heart alone contains blood, and in the lungs the blood is not in the lungs themselves, but in the veins by which they are perforated. But in the heart itself the blood is in each of the cavities, but the thickest blood is in the middle cavity.

The human kidneys, though similar to those of oozes, are more solid than in other animals, and the passages that lead to them end in the body of the kidneys; and this is a proof that they do not pass through them, because they contain no blood in the living animal, nor is it coagulated in them when dead; but they have a small cavity, as I said before. From the cavity of the kidneys two strong passages lead to the bladder, and two others strong and numerous lead from the aorta.

only fragments preserved in references remain. Hero of Alexandria wrote on Mechanics about 250 B.C. The following is his description of the Aspirator.

HERO: PNEUMATICS, BK. II, Chap. 18.

And the so-called Pae-extractor acts on this principle. A hollow length tube is fashioned, AB, to which another ΓΔ is fitted by grinding, of which let the end Γ be covered in with a scale; at Δ let it have a handle EZ. And let the end at A of the tube AB be closed by a scale having a fine hollow pipe HO. Whenever then we wish to draw off pus, we apply the end of the little pipe, the mouth Θ, to the place where the pus is, and pull the tube ΓΔ outwards by means of the handle. Since an empty space comes in the tube AB, it is necessary that something else must enter its place. There being no other place than the mouth of the little pipe, the surrounding fluid must needs be drawn in through this. Again, whenever we wish to inject any liquid getting in into the tube AB and grasping EZ, we push the tube ΓΔ and press till the injection seems to us to have taken place.

CATO THE CENSOR (234-149 B.C.) was a rigid opponent of Greek letters and fashions. His work in agriculture contains all the medical directions that he considered necessary for hardy Romans leading a simple life. These may be taken as typical of native Roman medicine before the advent of that of Greece.

CATO (V. PLIN. XXIX. 40.)

Dicam de istis Graecis san loco, Marci fili, quid Athenis exquisitum bibulam et quod haecum sit illorum literas inspicere non perducere vitam. nequissimum et indocile genus illorum et hoc peria vitam ducisse: quandoque ista gens suas literas habet omnia corrumpet item etiam magis si medicos suos hoc mittet. iuramus inter se barbaros specare omnes medicina, et hoc ipsum mercede faciunt ut fides in ut et facile disperdant, nos quoque dicitant barbaros et spurcis nos quam alios Opus appellatione foedari. interdum tibi de medicis.

DE RE RUSTICA

Cap. 115. Vinam ad alvum movendam. in vinam mustum veratui atri manipulari conficite in amphuram. ab eam effluat, de vino manipulari elicite. id vinum servato ad alvum movendam. alter si voles vinum ad alvum movendam confirmare vites cum abluantur signato rubrica et admiscione cum cactero vino. tres fasciculos veratui atri circumpositis circum radices, et terram insuper relicto, per videriam de his vitibus quod delingeris locum servato. cythum in cactorem potissimum indito. alvum movebit et postidie perpergabit sine periculo.

Cap. 116. Ad tormina si si tinea et lumboci valenti sunt, nigrita mala parva acerba sumis, comedato, indito in ucrum, et vini nigritanter conglus tres superposita. vas oblutito. post XXX. dies aperito et mitet. ieiunium beminum bibito.

Cap. 116. De brassica quod concoquit. brassica est quae omnibus cibibus antistat. eam esto vel coctam vel crudam. crudam si odas in acetum intingito. si sicco concoquit. alvum bonam facit levissimae; ad omnes res valde est, si voles si coxisse multum libere, coctoque illicenter, ante coctam esto crudam quoniam voles ex aceto. et item ubi cocturam, cocto ala quinque folia. reddent te quasi nihil edis libereque, libesque quantum voles.

Cap. 117. Et hoc amplius, totam conservato eam qui brassicam cocturam, id calfacito co hominem demittito. cito sanum facies hac cura. expectum hoc est. item pectus pedibus si lavas eo lito, aequam debiles sunt.

Cap. 117. Et laxam si quod est, bis die calida foveo brassicam tritam apposito, cito sanum facies. si bis die apponitur dolores auferet, et si quod contraxum est erumpet si brassicam tritam apponito et sanum facies. et si quid in maxillis alceris scissas et carinosa brassicam tritam apponito, sanum facies.

I shall speak of those Greeks in their place, Marcus my son. I shall prove what I have found at Athens that it is good to look into their literature but not to study it deeply. Theirs is a most worthless and intractable race, and believe that I speak this as a true prophet: wherever that nation shall bestow its learning it will corrupt all things, more especially if it sends its doctors hither. They have sworn to slay all foreigners by medicine, and this very thing they do for pay so that trust may be reposed in them, and their work of destruction may be easy. Us also they call barbarians, and they degrade us even more than others by the name of 'bambians.' I forbid you any dealings with doctors.

ON AGRICULTURE.—Wine for moving the bowels. Cast into a jar strong unfermented wine a handful of black hellebore. When it has fermented enough take it out of the wine. Keep this wine for moving the bowels. If you want another recipe for preparing wine to move the bowels, when the vines are being touched mark some with red chalk not to mix their wine with the rest. Put three bundles of black hellebore round the roots and throw the earth in on the top. During the vintage keep what you gather from these vines separate. Put half a gill among your other liquor. It will move the bowels, and next day will clear them out thoroughly without danger.

For colic, and if tape-worms and round worms are troublesome, take thirty root possepomates, break them up, put into a pitcher, and over them pour two gallons of harsh black wine. Plaster up the vessel. In thirty days open and use it. Drink half a pint fasting.

Concerning cabbage and what it digests. Cabbage is a thing which surpasses all vegetables. Eat it either cooked or raw. If you eat it raw dip it in vinegar. It promotes digestion wonderfully, puts the bowels right and the urine; it is good for everything. If you want to drink heavily at a banquet, and to sup freely, before the meal eat raw as much as you will with vinegar. And likewise when you have supped, eat five more blades. They will make you as if you had eaten and drunk nothing, and you will drink as much as you like.

And this further: keep the urine of one who is wont to eat cabbage. Warm it. Inscribe the patient in it. You will soon cure him by this treatment. It has been tried. Also if you wash small children with this urine they will never become weakly.

And if any joint is out, foment it twice daily with warm water and apply mashed cabbage, it will soon get well. If it is applied twice a day it will remove pain. And if there is any bruise it will break it up and heal it if you apply mashed cabbage. And if any ulcer and cancer arise in the breasts apply mashed cabbage, it will heal it.

Cap. 160. Luxa si quod est et exarctes hac castitate istam fet. hamulicem prende ois videris P. IV. an t. longum. Modiam diffunde et duo homines teneant ad coarctandos. incipe curare IN ALIO S. F. NOTAS VAKKA DAKIES DAKDARKIES ANTARKIES DISOUNAKIES usque diu cocare. ferro insuper lectaro, ubi coarctis et altera alterius tetigerit, id manu prende et dextra, sinistra pesside. ad luxam aut ad fracturam adliga. saron fet. et tamen quotidie curam IN ALIO S. F. vel LUXATO; vel hoc modo HUAT WANAT HUAT ISTA PISTA NOSTA DOMIARO DAMNAUSTRA ET LUXATO; vel hoc modo HUAT MAUT HAUT ISTA NOSTAK SISAR DOMIARON DUNNAUSTRA.

A. CORNELIUS CEIUS (circa 50 A.D.), an encyclopædic writer, who probably was a man of wealth and practical medicine as a

CEIUS, *De re Medica*

PRÆFATIO.—Utilissima sanis corporibus agricultura, sic sanitatem aegris medicina promittit. hæc utriusque quidem non est; eadem etiam ingentissimæ potius herbas, aliæque præterea in modum valentium morborumque novemur. venit tamen apud Græcos aliquando magis quam in cæteris nationibus excolta est: ac ne apud hos quidem a prima origine, sed pauci ante nos saeculis; utpote quam vetustissimas auctor Aesculapius celebraret: qui, quædam adhuc rudem et vulgarem hanc scientiam paulo subtilius excoluit, in decem tamen receptis est. . . . adeoque multos ex sapientiae professoribus peritos eras hanc accepimus: claudius vero ex his Pythagoram, et Empedoclem, et Democritum. huius autem, et quidam crediderunt, discipulus Hippocrates Com, prius quidem ex omnibus memoria dignis, ab studio sapientiae disciplinam hanc separavit, ut et ante et postea multos. . . . eadem temporibus in tres partes medicina diducta est; in una esset quæ victi, altera quæ medicamentis, tertia quæ manu tenderetur, priusam διαταγή, secundam διαγνωστική, tertiam θεραπευτική, Græci nominaverunt.

Lib. II. Cap. 11. Cucurbitulum vero duo genera sunt, uterque et coarctat. altera altera parte patet, altera clausa est: cornua altera parte aequè patens altera firmiter habet exiguum. in aëream linamentum ardens conseruit, ac sic eo eius creperi aptatur, imprimaturque, donec inhaereat. cornua per se corpori imponitur; deinde, ab ea parte quæ exiguum foramen est, ore spiritus adducis est, utperque tota curata id clausum est, aequè inhaerescit. imitatio non ex his tantum materiae generibus, sed etiam ex quolibet alio recte fit: ac si vetera defecerint, calicem quoque, an peltarias aut compositoria, et rei consilium optatur.

To charm away any dislocation. It will get better with this song. Take a sapling 4 or 5 feet long. Split it up the middle and let two people hold it to the hips. Begin to sing (*charon*) until they come together. Lay a knife handy, and when they have come together and the one (fragment) has touched the other, take the knife in the hand and trim off (the pieces of wood) on the right and left. Bind them to the dislocation or fracture. It will get well. But all the same sing every day (*charon*), or in this way (*charon*), or in this way (*charon*).

Asclepius describes methods of treatment and surgical operations with great skill; one of the few Romans expert in medicine.

CRUSO

PREFACE.—As agriculture promises food to the healthy, so medicine promises health to the sick. This art exists everywhere; for even the most uncivilized races have discovered herbs and other simple remedies for wounds and diseases. However, it has been more developed by the Greeks than by the other peoples; and not from the earliest epoch of these, but only a few centuries before our time; as appears from the celebration of Asclepius as its most ancient author; who, because he cultivated with a little more skill this science which before him was rude and common to all, was received into the number of the gods. . . . And thus we find that many of the philosophers were skilled in medicine, the most famous of these being Pythagoras, Empedocles, and Democritus. Hippocrates of Cos, believed by some to be the pupil of the last, was the first of all those worthy to be remembered who separated the practice of medicine from the study of philosophy, and was a man famous for skill and eloquence. . . . At the same period medicine was divided into three parts, one dealing with cures by diet, the second by drugs, the third by operation. The Greeks call the first Dietetics, the second Pharmaceutics, the third Surgery.

There are two kinds of cupping-vessels, bronze and horn. One of bronze is open at one end, closed at the other; a horn one similarly open at one end has a narrow hole at the other. In the bronze vessel burning linen is placed, and its mouth is adjusted to the body and pressed till it holds. That of horn is simply placed upon the body; then when the air has been drawn out of the end where the small hole is, and this opening closed above with wax, it likewise holds. Both may well be made not only of these materials but of anything else; and if other things fail, a small cup even, or vase with a narrowish mouth, readily serves the purpose.

Lib. iii. Cap. 22. . . . quod si uulū plax sit, et VERA PHTHISIS est, inter infia pustulas occurrens accusaturus est: neque enim facile in morbus, quam inveteraverit, evincitur. opus est, si vires patiantur, longa navigatione, coeli instillatione, sic ut densum quam id est, ex quo discedit aeger, petatur: adeoque aptissime Alexandrum ex Italia suo. fereque id posse inter principia corporis pati debet, quam hic morbus aetate firmissima maxime oritur, id est ab aetate duodevicesimo ad annos quatuor et tricesimum. si id insobolitas non fuit, neve tamen non longe potari commodiosum est: si navigationem aliqua res prohibet, lectica, vel alio modo corpus movendum est. tum a negotiis abstinendum est, omnibusque rebus, quae sollicitare animum possunt: summo indulgendum: castoreae destillationes, ne, si quid cura levari, coeperim: et tō id vitanda cruditas, simulque et cal, et frigis: eo oblegendis, fauces velandae, tuenda suis periodis frons: et, quando quidem febricula incensat, hic interdum abstinendum, interdum etiam temperata cibus medendum: corpus tempore bibenda aqua. lac quoque, . . . recte dari potest. . . . medicamentum est etiam vel plumbis succis per se: vel murrini cum melle incensat: ita ut illas cythas ardeant, hinc cochlear plumbi paulatim delurgant: vel inter se mista, et incensa resinae terbinthinae parti dandis, butyri et mellis pars altera. praecipua tamen ex his omnibus sunt vitia, velicatio, et naris, et sorbitio. alius est utique vitanda est.

Lib. iv. Cap. 9. Potui vero isurum dari debet abundantiam incoctum: at post cibum aqua a ferrario fibro, in qua cindera ferrum subinde trorum sit: haec enim vel praecipue benem cocti: quod ammadversum est in his animalibus quae apud hos feros educata, exiguis fides habet.

Lib. v. Cap. 26. . . . ubi aliquis letus est qui servari potest, potius propinanda duo sunt, ne sanguinis profusio neve inflammatio interimit. . . . scetus vedens ad sanguinem supplicandum est: hincque quidam id vulnus infundant. . . . quod si illa quoque profusio vincatur, venae quae sanguinem fundant apprehendendae, circaque id quod letum est, dantes loci deligendae, interciscendaeque sunt, ut et in se ipsas coeant, et nihilominus ora praecura habeant. . . . et advenit profusorem quidem in his animalibus est: adversus inflammacionem autem in ipse sanguinis cura. . . . licetque sine pergris et conquis et compositis medicamentis vulnus curare: sed si quis huc parum confidit, imponere medicamentum debet, quod sine vero compositum sit, ex his quae cruentis vulneribus apta esse proponi. maximeque, si caro est, Barbarum. . . .

Lib. v. Cap. 19. . . . optimum ex his est quod Barbarum vocatur: habet aerealis resae p. X. xii. spanae argenti p. X. xx. aluminis, poia arida, resinae piceae arida, singulorum p. X. i. quibus adiciuntur olei et aceti singulae heminae.

But if the disease is worse, being a *True Phlegm*, it is necessary to meet it at the very first; for when it is established it is not easily overcome. It is needful, if the strength permit, to seek by a long voyage a change of air to one cooler than that which the patient leaves; thus it is very suitable to go from Italy to Alexandria. Generally at the beginning the body ought to be able to bear it, for this disease arises chiefly at the youngest age, i.e. from the eighteenth to the thirty-fifth year. But if weakness stops this, short voyages in a ship are yet most suitable; if anything prevents sailing, bodily exercise must be got in a linen or some other way. Then abstinence from business and all other things which can trouble the mind, and indulgence in sleep are necessary; catarrhs must be avoided lest they make worse what carefulness has alleviated, and for this reason indigestion, the sun's heat, and cold must be guarded against; the mouth should be protected, the throat wrapped up, and cough should be stopped by its proper remedies; and so long as the attacks of fever last, these are to be remedied now by abstinence, now by timely meals, and at these times water must be drunk. Milk also . . . may properly be given. . . . Remedies are plectran-juce alone, or horehound-juice boiled with honey; of the former a wine-plectranid may be swallowed, of the latter a tablespoonful may be licked up gradually; or one part of turpentine mixed and boiled with another part of butter and honey. But most important of all are diet, travelling, sailing, and the draught. Diarrhoea is particularly to be avoided.

A decoction of wormwood may be given for a draught fasting; but after food water from the blacksmith, into which red-hot iron has repeatedly been plunged; for this particularly contracts the spleen. And this discovery was made upon the animals which are reared by these smiths and have very small spleens.

When any one is wounded who can be saved two things are at once to be foreseen, that neither loss of blood nor inflammation slay the patient. . . . Vinegar has great power in stopping blood, and therefore some pour it into a wound. . . . But if even these things do not stop the flow, the vessels which pour out the blood are to be seized round about the wound, tied in two places and cut, so that they may shrink up and yet have their mouths closed. . . . And in these measures lies the remedy for bleeding; but for inflammation it is found in the discharge of blood itself. . . . A wound may be healed without foreign, costly, and compound remedies; but if any one has too little confidence in this method, he may apply a medicament which is compounded, without guano, from the things which I mentioned as varied for bloody wounds, especially, if in the flesh, the Barbanum.

The best of these is the one called Barbanum. It contains:—Of scraped acetate of copper $2\frac{1}{2}$ ounces; of silver-litharge $2\frac{1}{2}$ ounces; of alum, dry pitch, and dry pine resin each 1 drachm: to these are added of oil and vinegar each half a pint.

Lib. vii. Cap. 12. . . . si vero dens durescens invenit, eumque cum, quia medicamentis nihil adjuvat, planat, circumcidi debet, ut gingiva ab eo resolvatur : nam si concutendum est. caput facienda, donec bene moveatur : nam dens huerem cum visum periculo evellitur, ac nonnunquam maxilla loco movetur : idque etiam molere periculo in sepevolutis dentibus fit, quia potest tempora oculorum contondere. Item si feri potest, manu ; si minus, forcipe, dens excipandus est.

Lib. vii. Cap. 13. . . . si quidem interdum vel ex studio primum inflammatur, deinde postea perdere abrupitur, vel ex ictu aliquo protinus rumpitur tunica, quae durescem ab infectionibus paribus intestina debet : nam perdere se deolvitur aut oneratum aut etiam intestinum : idque, ubi repertum est, paulatim ab inguinibus et inferiores quoque partes rorant, unde nervosae tunicae, et ubi id eis rei patientes, diducit : *ἔρπονόςλαγ* et *ἑνερθεόςλαγ* Graeci vocant : apud nos indecorum, sed commune his beruiae nomen est.

Lib. vii. Cap. 19. . . . deinde si inguen incidendum est, idque iam parte contegitur, ante radendum est, et tam externo acuto, et cutis inguinis intenta sit, id incidendum ubi imo venit, quia cetera abdomine tunicae inferiores constituntur. aperturam astra audacter est, donec summa tunica quae ipsius acuti est incidatur, perveniantque ad eam quae media est. . . . inde si qua vitiosa sunt, circumcidenda sunt : in quibus quatuor multae venae dicuntur, tenues quidem praecidi potius possunt : maiores vero ante longiore filo deligantur sunt, ne periculosae sanguinem faciant. . . . idem si intra quoque tunica, si laesa est, facienda est. sed non a summa inguinis plaga, verum infra paulum ea abscidenda, ne, laesa abdominis membrana, inflammationes moeat. Neque tamen nimiam ea ea reman relinquendum est, ne postea sanetur, et sedem eadem malo praestet. . . . quancunque autem tunicum quis violavit, illam quoque debet excidere, ac mediam quidem, ut supra dixi, quam altissime ad inguen, imam artem paulo infra. cauterium, antequam excidatur, hae quoque vicini filo summae debent, et cum filo capita extra plagam relinquenda sunt, sicut in aliis quoque venis quae id requirunt. . . . hinc quibus capita eorum continebantur, extra plagam dependere debent : quae, pure orto, ante illo dolore excident. ipsi autem plagues incidendae duo filulae sunt, et insuper medicamentum quo gloriatur. . . . deligant autem vitium omne quod ex his carnis factum est, si dolor nullus est, quinque primis diebus non est resolvendum : sed his die tantum aceto irroanda lana vel spongia : si dolor est, tertio die resolvendum, et ubi fibrulae sunt, hae incidendae : ubi linamentum, id immutandum est : rosaeque et vino malefaciendum id quod impositum.

. . . But if a tooth is pained, and it is thought proper that it should be taken out because medicines give no relief, it ought to be scraped around to free the gums from it, then it must be shaken. And this must be done till it moves freely; for an adherent tooth is pulled out with the greatest danger, and sometimes the jaw is dislocated; and this is accompanied by even greater danger in the case of upper teeth, because one may violently shake the temples or the eyes. Then the tooth is to be taken out, with the hand if this can be done; if not, with the forceps.

. . . The tumor which ought to separate the intestines from the lower parts is sometimes first inflamed by disease, and then pulled down by weight, or it is with all at once by some injury. Then either the omentum alone or this along with the intestine rolls down into it by its own weight; and, having found the passage there, it also gradually bears down into the lower parts from the groin, and next severs the stercoraceous tunics which are affected in the same way; the Greeks call these *enterocoele* and *epiplocele*; with us an indecent but common name for them is *hernia*.

Then if the groin is to be incised, and is covered with hair, it must first be shaved, and then the scrotum being stretched to render the skin of the groin tense, the incision is made at the very foot of the abdomen where the lower coverings join the abdomen. An opening is to be boldly made till the first tunic, which is that of the scrotum itself is incised, and the middle one is reached. . . . If there is anything pathological in these (tunics), it is to be excised; if any vessel run in them, the smaller ones may forthwith be cut, but the larger must first be tied with a fairly long thread, lest they cause a dangerous hæmorrhage. . . . The same thing is to be done also in the case of the third tunic if it is injured. But it must be cut away not at the top of the wound in the groin, but a little lower down, lest the membrane of the abdomen being injured, inflammation is set up. Nor yet must too much of it be left behind lest a pocket be formed and afford a place for the same disease process. . . . But whatever parts one has incised with one must also excise, the middle one, as I have said, as high as possible in the groin, the third a little lower. But before they are cut off, the upper ends of these also must be tied with a ligature, and the ends of this ligature must remain outside the wound, as also those attached to the veins which required it. . . . The ligatures by which their ends are secured ought to hang outside the wound, so that when separation has taken place they separate without any pain. To the wound itself two fimbriae are to be applied, and over all an agglutinating medicine. Every wound made for these reasons, if there is no pain in it, must not be undone for five days after it has been bandaged up; but twice a day the wool or sponge (covering it) is to be moistened with vinegar only; if there is pain it should be undone on the third day, and where there are fibrulae, these are to be cut off; where there is fist, this is to be changed; and the dressing applied is to be soaked in oil of roses and wine.

PLINY (A.D. 23-A.D. 79), encyclopaedic writer, though he did not practise medicine records a great number of interesting and important facts connected especially with materia medica and medical history; perished at the destruction of Pompeii.

PLINY *Nat. Hist.*

Lib. xx, Cap. 76. . . . E nigro papavere sapor gigitur scapo incisus, ut Diogenes saaslet, cum tergescit; ut lallus, cum deflorescit hœc diei sereni; hoc est, cum ros in eo exaruerit. incidi iubent sub capite et calyce. nec in alio genere ipsum inciditur caput.

Succus et hic, et herbarum cœterarumque latic exipitur: aut si exigua est, unguis pollicis, ut lactucis, et possum die magis quod inaruit. papaveris vero latic densum, et in panillos tritus in umbra siccat, non si segetifera modo, verum si copiosior hauriam, etiam monidera per scannos: quam vocant. sic scannum interentem Poscania Lictia Cassiana praetorii cum patrem in Hispania Baed, cum valens impubilis odium vixit fecisset: item plerosque alios, quia de causa magna concertatio estitit. Diogenes et Erasistratus in tota damnare, et manifestare, infundi vetantes. praeterea, quoniam vixi noceret. addidit Andreas, ideo non protinus excrucari eo, quoniam adulteraretur Alexandriae. sed postea cum eia non improbatum est medicamento nobili, quod diacodien vocant. sentire quoque eius trito in panillas, e lacte stuant ad somnum: item ad capitis dolores cum rosaceo: cum hoc et aurium dolori iuvillatur, pedibus illitur cum lacte mulierum. sic et folia ipsa mutant. item ad sacros ignes et vultum ex aceto. ego tamen damnaverim colluviis addi: multoque magis quos vocant leucopretes, quoque pepticas et coeliacas. nigram tamen coeliacis in vino distillatum omne moris: retunda ei capita: et syloestri latic ac pœilla, et ad omnes effecus valentiora. decoquatur et bibitur contra viglias: eademque aqua fovem ura. optimam in succis, et ubi raro plant, cum capita ipsa et folia decoquantur, succus moecorum vocatur, malum opio ignavior.

Experimentum opii est primum in odore: sincerum enim perpeti non est: non in levernâ, ut pura luceat flamma, et ut exiguam flammam eleat: quae in fumo non eremur. accenditur quoque difficilis, et crebro extinguitur: est sincerum experimentum et in aqua, quoniam in nebula inruit: lectum in panillas coit. sed maxime tritum, aestivo sole deprehendi. sincerum enim saaslet, et se diluit, donec sacro rorem simile fiat.

FLAX

From the black poppy, juice is produced by incising the stalk, as Dioscorus advises, when it is growing, or, as Ictius advises, when the flower falls off, at the proper season on a quiet day, that is when the dew on it has dried. They direct that care be made under the head and on the calyx. In no other kind (of poppy) is the head itself incised. The juice, like that of any other plant, is received on wool; or, if in minute quantity, is scraped off with the thumb-and-like lettuce-juice, and on the day following more as it has dried. When obtained in abundance it is thickened, bruised, and made into lozenges which are dried in the shade. This is possessed not only of soporific power, but if a too large dose is taken of sleep passing into death; they call it *opium*. In this way we learn did the father of Pomponius Licinius Carcina, a man of praetorian rank, end his life at Ravenna in Spain when an incurable malady had made life hateful; so too many others. For this reason much discussion has arisen about its use. Dioscorus and Erasistratus have condemned it utterly as a poison, forbidding its use for infans; especially because it damages the sight. Andreas has added that the reason it does not cause immediate blindness is because at Alexandria it is adulterated. But later its use has been approved, in that excellent remedy called 'diacodium.' The crushed seed also made into lozenges is taken in milk to produce sleep; with oil of roses it is used for headache; and in the same form is distilled for earache. A liniment for gout is made with woman's milk. The leaves are employed as well. Prepared with vinegar they are applied to erysipelas and wounds. For my part I condemn its addition to eye-salts, and still more to those prescriptions called febrifuges, digestives, and stomachics. The black poppy, however, is given in wine for affections of the bowels. The *Papaver Sativum* is larger than others; it has round heads; the wild poppy has elongated small heads with more powerful properties. A decoction is drunk to combat sleeplessness, and used to foment the face. The best poppies grow in dry places, and where it seldom rains. A decoction made from the heads together with the leaves is called 'meconium' but this is much less active than *opium*.

The chief test of *opium* is the smell, for when genuine it is endurable; as soon as it is held in the lamp it burns into a clear flame, and smells strongly when extinguished. This does not happen with the counterfeit, which is lighted with difficulty and frequently goes out. There is also a test for genuineness with water, for, if pure, it floats in clouds, when false it collects into blobs. But the most remarkable test is furnished by the summer sun; for genuine *opium* sweats and melts till it becomes like freshly gathered juice.

For Mithridates, the greatest king of his time, whom Pompey conquered, is accorded both by positive proofs and by general report to have been a most assiduous searcher after things conducive to life beyond all his predecessors. By him alone the plan had been devised of drinking poison daily, after taking proper precautions, so that when he was accustomed it should be harmless to him. He first fused out the various kinds of antidotes, one of which indeed bears his name. They say that it was his discovery to mix with antidotes the blood of Pontic ducks, because they lived on poison.

ARETÆUS

ON HYSTERICAL SUFFOCATION

In the middle of the flanks of women lies the womb, a female viscus closely resembling an animal; for it is moved of itself higher and thither against the flanks, but also upwards in a direct line to below the cartilage of the throat, and obliquely to the right or to the left, or to the liver or the spleen; and it likewise is subject to prolapsus downwards, and in a word it is altogether erratic. It delights also in fragrant smells and advances towards them; and it has an aversion to fetid smells and flies from them. And altogether the womb is like an animal within an animal. When therefore it is suddenly carried upwards and remains above for a considerable time, and violently compresses the intestines, the person experiences a choking after the form of epilepsy but without convulsions.

ON PARALYSIS

Apoplexy, Paraplegia, Paresis, Paralysis are all generically the same. For they are all a defect of vision, or of touch, or of both; sometimes also of understanding, and sometimes of other sense. But apoplexy is a paralysis of the whole body, of sensation, of understanding and of motion; wherefore to get rid of a strong attack of apoplexy is impossible; to get rid of a weak not easy. But paraplegia is a remission of touch and motion, but of a part either of the hand or of the leg. Paralysis for the most part is the remission of motion only and of energy. But if the touch alone is wanting—but such a case is rare—the disease is called *Anæsthesia* rather than paresis. And when Hippocrates says, "the leg on the same side was apoplectic," he means to say that it was in a death-like, useless and incurable state; for what is apoplexy in the whole body, that he calls Paraplegia in the limb. Paresis, properly speaking, is applied to suppression or incontinence of urine in the bladder.

ἥτε μὲν οὖν τῆς κεφαλῆς αὐτοῦ οὕτως τὰς ἀρχὰς ἰσχυροῦς τι τοῖς κυτταρίσιν μολοῦν ἢ ἀφαιρῆναι τὰ ἀμύηται καὶ ξυνοφύει παραλείπειται, ἱερὸν ἐπὶ δεξιόσιν καὶ ἐπ' ἀμφοτέρωσιν λαοὶ ἥτε ἂν κοτύλην κεφαλῆς ἐπὶ μὲν τῶνδε δεξιόσιν τὰ λαοὶ παραλείπειται, δεξιὸν δὲ ἐπ' ἀμφοτέρωσιν, αὐτοῖς δὲ τῶν ἀρχῶν τῶν τοῖσιν ἢ ἱσχυροῦς καὶ γὰρ κατ' ἥτε τὰ δεξιὰ ἐπὶ δεξιᾷ ὁμοιοτρόφῳ μέρει παρατίθεται, ἀλλ' ἔσφαται τῇ ἀρχῇ ἰσχυροῦς οὕτως ἐπ' ἰσχυρὸν φασὶν, ἀλλήλῃσιν ἱσχυροῦσιν ἐν ἱσχυρῶν στήθεσιν.

ΠΕΡΙ ΔΙΑΒΗΤΕΩΣ

Θάλασσα ἐν διαβήτην αὐτοῦ, ἐν αὐτῇ ζήνῃσιν ἀπορῶνται σπυρῶν καὶ μολοῦν ἐν οὐρῶν ἢ ζήνῃσιν ἔργῳ καὶ ψυχρῶν ὅπως ἐν ὀσμῇ, αὐτοῖς οὕτως ὅπως δὲ ἢ ζήνῃσιν κοφῶν τι καὶ κίστικα οὐ γὰρ ἀπορῶνται αὐτοῖσιν ἀλλὰ ἀπορῶνται ἐξ ἀφῆσιν ἔχουσιν ἀπορῶνται ἢ φασὶν, χροῖον μὲν ἢ τῆς αὐτοῦ τοῦ μακροῦ καὶ σκεπτοῦ χροῖον, βροχίβου δὲ ὁμοιοτρόφῳ, ἥτε ἢ κοτύλησιν τοῖσιν ὁμοῖον γὰρ ἢ τῶνδε, τοῖσιν δὲ ὁ θάλασσα ποτὶ καὶ βίαια αἰσχυρὰ καὶ αὐτοῖσιν ἀφῆσιν ἀπορῶνται.

ΘΕΡΑΠΕΙΑ ΤΗΣ ΚΑΤΑ ΤΟΥΣ ΝΕΦΡΟΥΣ ΟΞΕΙΑΣ ΝΟΣΟΥ

Καταφῶ μὲν ἐν νεφροῖσιν φλεγμονῇς . . . τήνται φλέβη τῆς ἐπ' ἀρχῆς, ἥτε μὲν κοτύλη τῆς φλέβης, ὅπως δὲ καὶ πολλὰ ὅπως τὸ αἷμα . . . ἴσται σκεπτοῦ προσβάλλει ἐν νεφροῖσιν κατ' ἱσχυρῶν, μολοῦν δ' ἥτε ἢ ἐπὶ τῶνδε τῶν χροῖον αὐτοῦ ἀπορῶνται ἀπορῶνται δὲ κοτύλη ἀπορῶνται ἀπορῶνται, γὰρ ἔχουσιν μολοῦν ἢ ἀπορῶνται, μολοῦν ἢ τῆσιν χροῖον, κατ' ἥτε φλεγμονῇς ἐπὶ τῶνδε σκεπτοῦ ἀπορῶνται, ὅπως ἐπὶ ἥτεσιν ἀπορῶνται, ἔσται καὶ σκεπτοῦ ἔσται, αὐτοῖς γὰρ σκεπτοῦ ἀπορῶνται, ἀπορῶνται δὲ γὰρ, μολοῦν μὲν ὅπως, ἴσται δὲ ὁμοιοτρόφῳ καὶ ὅπως δὲ καὶ αὐτοῖς χροῖον, ἐπὶ γὰρ, ἥτε μὲν οὖν ἔσται ὅπως, καὶ λαοῖν ἀπορῶνται.

ΠΡΟΣΚΟΜΙΔΑΣ (περὶ 100 A.D.) ἀπὸ α καὶ β τοῦ *De Materia Medica*.

ΔΙΟΣΚΟΡΙΔΟΥ ΠΕΡΙ ΥΑΝΗΣ ΙΑΤΡΙΚΗΣ

Περὶ ὕδατος.—Ὑδὸς ὁμοῖον ἐπὶ τῶνδε γινώσκου, αὐτὸ ἢ κοτύλη καὶ τὰ φέλλα καὶ ὁ φέλλας καὶ ὁ χροῖον σκεπτοῦ ἔσται ἔσται, ἀπορῶνται δὲ τὰ φέλλα λαοῖν μὲν ἀπορῶνται ἀπορῶνται καὶ οὕτως ποτὶσται αὐτοῖσιν, κατ' ἥτε ἴσται δὲ ἐπὶ ὅπως ἀπορῶνται, ἀπορῶνται ἀπορῶνται, ἢ δὲ ἀπορῶνται ποτὶσται ἀπορῶνται ἀπορῶνται, καὶ ὁ φέλλας δὲ τὸ αὐτὸ ἔσται καὶ ὁ φέλλας ὅπως τῶνδε καὶ φέλλας αὐτοῖς ἀπορῶνται, ὁ δὲ ἐπὶ τῶνδε φέλλας καὶ τὸ φέλλας χροῖον ἐπὶ ἀπορῶνται ποτὶσται ἀπορῶνται ποτὶσται ἀπορῶνται, καὶ τὸ ἀπορῶνται δὲ αὐτοῖς ἀπορῶνται ἀπορῶνται ἀπορῶνται, καὶ αὐτοῖς ποτὶσται ἀπορῶνται, ὁ καὶ ὅπως ἔσται ἀπορῶνται ποτὶσται καὶ φέλλας κατ' ἥτε ἀπορῶνται, ὅπως γὰρ ἀπορῶνται ἀπορῶνται, ἀπορῶνται δὲ ἔσται ἀπορῶνται τῶνδε ἀπορῶνται τοῖς κοτύλη.

If therefore the commencement of the affection be below the head such as the membrane of the spinal marrow, the parts which are homonymous and connected with it are paralysed; the right on the right side and the left on the left side. But if the head be primarily affected on the right side, the left side of the body will be paralysed, and the right if on the left side. The cause of this is the interchange in the origins of the nerves, for they do not pass along on the same side, the right on the right side, until their terminations, but each of them passes over to the other side from that of its origin, decussating with each other in the form of the letter X.

ON DIABETES

Diabetes is a strange affection, not very frequent in man. It is a melting down of flesh and limbs into urine. Its cause is of a cold and moist nature, as in dropsy. The parts are the common ure, the kidneys and bladder. For they (the patients) do not stop making water, but the passage is ceaseless as if from the opening of aqueducts. The nature of the disease is chronic and it develops over a long time. But the patient is short-lived when it is confirmed. For the melting is rapid, the death speedy; besides, too, life is disgusting and wearisome, thirst is insupportable.

TREATMENT OF ACUTE DISEASE IN THE KIDNEYS

Inflammation in the kidneys is a very acute condition. . . . Open the vein at the elbow, unless some period of life prevent it; and let the blood flow freely. . . . Then apply a cupping vessel over the kidneys in the loins, especially if the depletion of this part has done good. Let the bowels be emptied by salty clysters, sticky rather than purgent, the juices of mallow or of fenugreek. Sometimes give diuretic drugs before meals such as those described for the liver; also similar food easy to digest, for to such people indigestion is bad. Milk is very good, especially asses', next mares', and also that of the sheep and goat. If they are free from fever the bath is rather good.

DIOSCORIDES ON MATERIA MEDICA

ON WILLOW.—The willow is a tree known by every one. Its fruit, leaves, bark and sap possessstringent properties. The leaves rubbed down with a little pepper and wine are good for patients with diseased intestines. It prevents conception if taken by itself with water. The fruit helps blood-spitting; the bark does the same. If burned and applied mixed with vinegar it removes knots and warts. The juice from the leaves and bark warmed in a pomegranate shell with rose oil is good for varicela. The decoction is a fine fermentation for pox. It clears away scurf too. Juice is got from it by cutting into the bark when the tree is in flower. It is found solidified inside. Lastly, it has the property of clearing away opacities from the pupils of the eyes.

DIOSCORIDES—continued

ON MUSTARD.— It has heating and digestive properties, it causes shrinkage, and if chewed induces phlegm. Its juice mixed with hydnoriel makes a good gargle for swollen tonsils and chronic thickening and roughness of the air-passages. If held to the nostrils bruised it induces sneezing. It helps epileptics and amuses women stilled by the womb. Lethargic people have their heads shaved and this smeared over.

Mixed with figs and applied till the part is red it is good for lumbago and diseased spleen, and in short for every chronic pain whenever we wish to bring anything from below to the surface by the principle of counter-irritation. If applied as a plaster it cures baldness. It clears the complexion, and in honey or tallow or olive removes puffiness under the eyes. It is used in vinegar as an ointment for leprosy and severe eruptions. It is swallowed dry in recurring fevers, sprinkled on the drink like barley-meal. It can be usefully mixed with blistering or desquamating plasters. It helps dullness of hearing and noises in the head when ground with figs and put into the ears. Its juice mixed with honey is good to smear on dim eyes and rough eyelids. The juice is pressed out from fresh seed and dried in the sun.

ON ARTEMISIA MARITIMA (SANTONICA).—*Artemisia maritima*—some too call it *seriphos*—which grows on the Taurus range throughout Cappadocia and in Taprobana in Egypt, and which the worshippers of Isis use in place of palm-leaves, is a light-stemmed grass like small absorb, full of little seeds, slightly bitter, bad for the stomach, of heavy smell, astringent with some heating power. Boiled by itself or with rice and taken with honey, it kills ascariides and round worms, expelling them easily. Cooked with soup or porridge it can do the same. The sheep grazing in Cappadocia are especially fat.

ON CROTON (OL.—Οἶ). or Croton some call wild sesame, others Cyprian sesule, the Egyptians *sythama*, others *trios*, south-seas fever-bloom, the Romans *vicissum*, and others *lapa*. It is called croton (a tick) on account of the resemblance of the seed to this animal. It is a tree the size of a small fig; the leaves like those of a plane but bigger, smoother, and darker. Its trunk and stems are hollow like a reed. The fruit is in rough bunches, and when skinned is like the tick animals; from it is pressed castor-oil, as it is called. It is not edible, but is useful for lumps and plasters. Thirty berries cleaned, pounded, and swallowed bring phlegm, bile, and water through the bowels. They also cause vomiting. Purgings by this means is very disagreeable and troublesome, upsetting the stomach violently. Berries pounded and made into a plaster cure acne and freckles. The leaves crushed with barley-flour check swellings and inflammations of the eyes and swollen breasts, and relieve attacks of erysipelas either alone or made into a plaster with vinegar.

CLAUDIUS GALEN (130-200 A.D.) was born at Pergamon; lived most of his life in Rome; intimate with the emperors Lucius Verus, Marcus Aurelius, Commodus, Pertinax and Septimius Severus; an extraordinarily voluminous writer on medicine and philosophy; lectured publicly on anatomy; practised as a physician. The references that follow are to Kühn's edition.

ΠΕΡΙ ΧΡΕΙΑΣ ΤΩΝ ΜΟΡΙΩΝ

III. 323. Ὁμοίῃς ὁ τοῦτον ἐκ πλαγίῳ μέρος τῆς κεφαλῆς ἐστὶ τὸ λευκαῖον τῶν ὀστέων αὐτοῦ διαφύσσας, πύμπη τοῖς αὐτοῖς στήθεσι μέγας, οὐδὲν σκληρὸν αὐτῷ οὕτως. σχισθῆναι δ' εἰς δύο μέρη κατ' αἰσῆς τῆς ἐκ τοῦ ὀστέου ὁδοῦ, εἰς μὲν τὴν ἀκουστικὴν μέρος θέσθαι, εἰς δὲ τὴν τοφλίαν καλεούμενην τῆσιν τὸ λευκὸν ἡμετέροις μέγαν. οὐ μὲν τοφλίαν γε ἔσται ὀστέον, ὡς περ καὶ λέγεται, ἀλλ' οἶμαι, τοῖς πρώτοις αὐτοῦ θυμῶσι τοῦτον, αὐθιγνὸν ἢ σκληρὸν ἢ ἴσως τριχὺ ἔσται μὴ συμμεινὸς διαβυδαῖς ἀπὸ τῶν τοφλίων ἐκδοφῆναι, ὅτι δ' αἶψά ἢ τοφλίῳς αὐτοῦ τοῦ μὴ διακρίνεται, ἀλλ' ἢ σκληρῶς καὶ σίμῳ. παρακρίνεται δὲ οὐ κατ' ἄλλους τὸ τῶν ὀστέων καὶ γινώσκοντες τὸ ἴδιον αἰ ὅτι ἔσται αἰ κατ' αὐτὸ φραγθῆναι καὶ τὸ ἴδιον εἰς τὸ ἐκτὸς ἐκρίναι φαίνεται κατὰ τὸ αὐτό.

III. 412. τὸ γὰρ τῶν ὀστέων τῶν ἀσθῆναι ἐκδεχόμενον ὁ ἐκείνου ὅτι, ἢ οὐκ τὸ τῶν ὀστέων τε καὶ τῆς γλῶττης τοῦτον, καὶ πρῶτον τῶν ἄλλων ὁστέων τὸ ἴδιον μέρος εἰς μὴν ἀρχὴν ἀφίχθαι ἴδιον.

III. 427. συνεισέλθοντες γὰρ οὐ τῇ πείρῃσι ἐκ τοῦ ἐξ ἀνάγκης ἢ τι φασὶν τοῦ ἴδιου καὶ ἢ ἐξ αὐτῆς τῆς κεφαλῆς κοιλίας, καὶ τῶν ὀστέων, εἰς ὅταν ἐκείνου αὐτῶν ἴδιον χρόνι. ἢ μὲν γὰρ ἐξ αὐτῆς κοιλίας τοῦ πείρῃσι ὅσον γίνονται, ὁ δὲ πείρῃσι κατὰ ἀσθῆναι τε καὶ φασὶν ὅτιν ἔσται. εἰς αὐτὴν ἡμετέροις Ἀριστοτέλει διακρίνεται κατὰ τὸ πλείονος τῶν ἐκ τῆς κεφαλῆς κοιλίας εἰς μέγαν καὶ μικρότερον τοῦ σίμῃσι διδόναι αὐτοῖς τὴν ἀσθῆναι. αὐτὸ γὰρ τοῖς μεγέτοις ἴδιον ὅσον τριῶν, οὐκ τοῖς ἐλαχίστοις ὅτι μὴ τῆς αὐτῆς γὰρ ἀσθῆναι ἔχει κοποστικῆς κεφαλῆς ὅσον ἢ μέγαν ἐλαχίστην στροφθῆναι, καὶ εἰ μὲν ἀσθῆναι καὶ εἰ βλεῖν, καὶ εἰ τι τῶν ἄλλων ἴδιον, καὶ ὅτι μεγέτοις εἰ τι μὲν ἢ μίσην βλεῖν, ἔσται αὐτοῖς ὁ εἰς ἀσθῆναι ὅσον ἢ τῶν κοιλίας, ἢ εἰ ἄλλῃ κατασκευῇ τῆς κεφαλῆς ἢ αὐτῆς. αἰ γὰρ οὐ μέγαν ἀσθῆναι καὶ σμαρτῆσι σίμῃσι ἢ φασὶν ἐκείνου τῶν ὀστέων τῶν ἴδιων, ἀλλ' ἢ τῆς ἐκείνου ἀσθῆναι σίμῃσι αὐτῆς γινώσκοντες τῆς κοποστικῆς, αὐτοῖς δ' αὐτὸ πλείονος τῶν ἐκείνου τῆς σίμῃσι κατὰ τῆς αὐτῆς.

III. 460. τοφλίαντος μὲν οὐτ' ἐξ αὐτοῦ τοῖς σίμῃσι τῶν ἐκ τῆς κεφαλῆς ἐκείνου ἐκείνου ὅσον ἀσθῆναι αὐτοῖς ἀσθῆναι αὐτοῖς ἀσθῆναι ἔσται, καὶ τῶν ἄλλων ὅσον καὶ ἀσθῆναι αὐτοῖς, ὅσον

ON THE USE OF THE PARTS OF THE BODY.—Next to these nerves, there exist on the side parts of the head extensions towards the pterygoid bones. This is a fifth pair of nerves (modern 7th and 8th) and they are not yet lost. They branch into two at their passage through the bones, sending one branch to the acoustic canal, the other into the so-called blind aperture. It is not really blind as it is said to be, but I think the first who gave it this name inserted a reed or a hog's bristle, and, being unable to push it through, imagined it ended there. It is not that which prevents things passing through, but the bend upon the passage. Gradually cut away all the bone and expose the nerve. The windings in it will be detected and the nerve will be seen to emerge beside the ear.

The brain is what receives all sensations, or else it must appear that the nerves of the ears and of the tongue and of all the other parts of the animal as well do not run up to a single source.

For invariably if the lung is absent, so of necessity are the voice of the creature and the right cavity of its heart; and in this the degree of either's utility is clear, for the right cavity exists for the lung, while the lung itself is the organ of respiration and of speech. Aristotle, then, in his determination of the number of the cavities in the heart is not right when he reckons their number as corresponding to the greatness or smallness of the body. The biggest animals have not all three, nor the smallest one, for the big horse has exactly the same structure of the heart as the tiniest sparrow. If you dissect a mouse or an ox or any of the other animals (*ἄνθρωπος*) smaller than a mouse, if there be one, or bigger than an ox—all these have the same number of cavities, and the rest of the heart's structure is identical. Nature did not regard greatness or smallness of body or varying the form of the organs; the difference of function was what the structure aimed at, and these very functions she regulates by prime utility.

At all the orifices of the vessels starting from the heart there are membranes opposed to one another, and so accurately set that when they are stretched and stand straight out they block the whole orifice.

All of them have a common valley—to prevent the materials from running back again; and each has one of two special uses, viz. those that lead the material from the heart prevent return to the heart, those that admit them prevent egress. For nature did not mean the heart to perform needless work, now in forcing to that part whence it ought rather to draw, now in continually drawing from that part to which it ought to be sending. There are four orifices in all, two at each cavity, one of the two to admit, the other to let out.

The lung, like the liver, is a network of numerous vessels with the interstices filled up with a sort of packing of soft tissue. Of the vessels, one starts from the left cavity of the heart, one from the right, and one from the pharynx.

It will now be explained why to these two nature joined a third vessel, the one starting from the pharynx which some call 'rough artery,' and some 'windpipe.'

ON UNNATURAL TUMOURS

When an artery has developed an opening, the affection is called aneurysm. It arises after injury of the artery, when the adjacent skin has scarred, but the wound remains in the artery which has neither united nor become blocked with tissue. Such affections are diagnosed from the pulsations of the arteries concerned, but all the tumour disappears on pressure, the material then causes it running back into the arteries. This we showed elsewhere to be a kind of thin yellow blood mixed with much thin air. This blood is at once warmer than that in the veins, and is shot out unobscuredly when the artery is wounded. In cases of oedema, too, the material gives way under pressure of the fingers and the part pits, but there is no pulsation in this affection, the colour is whiter, and the oedema is fatter and wider than an aneurysm, except when some thrombus developing from an aneurysm causes gangrene.

ON THE CAUSES OF THE PULSES

Warm baths make them large, sudden, frequent, and strong, provided the baths are moderate. But if they are immoderate they make the pulses small and weak, but still sudden and frequent. And if they stop at this point, the pulses are small and weak, slow and intermittent.

ON THE COMPOSITION OF REMEDIES

Another motive from Scribonius Largus: in pathological patients, bringing up phlegm or pus, it brings away strings of mucus and makes an adequate clearance. It is necessary to wait for its action.

℞ of sagapenum and of myrrh ℥i, of opium and of cardamum ℥ss, of castor ℥ss, of white pepper to grains. Make into a paste with honey and form boluses. Give in warm water a tablespoon at a time.

GALEN—continued

The prescriptions of Asclepiades in the fourth book of the 'Externa,' Restoratives and Cordials. Restoratives are for weariness after hard work, and for nervous affections. Theriac used this one. The drug is very good.

$\frac{1}{2}$ of myrrour 1 pint, of rosemary 1 pint, of fenugreek 1 pint, of cardamum $\frac{1}{2}$ pint, of saffron $\frac{1}{2}$ pint, of sweet wine 3 pints, of Venetian olive-oil 3 litres, of wax 2 pounds. Put the dry materials into the wine and let them soak for three days; on the following day put in the olive-oil and stir vigorously. Put on the fire and boil, stirring the while. As soon as it boils continuously squeeze out the moisture, scrape the wax down and add to the mixture. Put on the fire again and boil. As soon as the wax is melted take off the fire and let it cool. When you have cooled it, put in a vessel of earthenware or tin, and use, sometimes as it is, sometimes compounded with one of the ungents.

THE APHORISMS OF HIPPOCRATES AND GALEN'S
COMMENTARIES THEREON

"Upon chronic pain in the abdomen pain develops." For whether there is a chill, or an irregular constitution of the bowels; or flatulence, or a sharp acidity, they cannot last long provided that everything proper is done for the sick man, which must be taken for granted in all such discussions. But there is still the possibility that the pain may persist, owing to an inflammation which will in time create pus, unless, of course, the man dies first, for his survival too must be taken for granted in all such discussions.

MEDICAL DEFINITIONS

Hydrophobia is an affection following a mad dog's bite accompanied by aversion to fluid and by convulsions and biceps. Madness too smacks them.

Cholera is a very acute and painful disease which quickly pulls down the patient with vomiting, or also as the result of diarrhoea and much secretion develops colic, and shortly after fevers, like those of dysentery, with dangerous distention of the bowels of a permanent and wasting nature.

Tenazum is a condition of the lower bowels, and especially of the rectum, causing frequent calls to stool and desire to ease oneself, but scanty evacuations.

Osena is a deep-seated ulceration in the nostrils with a bad smell and having a discharge.

Scirrh is a tumour of the body, hard, grievous, immovable, and difficult to define.

Carcinoma is a malignant and very hard tumour, unbroken or ulcerated. It is named from the animal the crab.



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